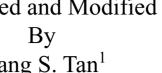
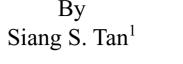


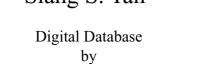
# GEOLOGIC MAP OF THE DANA POINT 7.5' QUADRANGLE ORANGE COUNTY, CALIFORNIA:

## A DIGITAL DATABASE

VERSION 1.0 Compiled and Modified

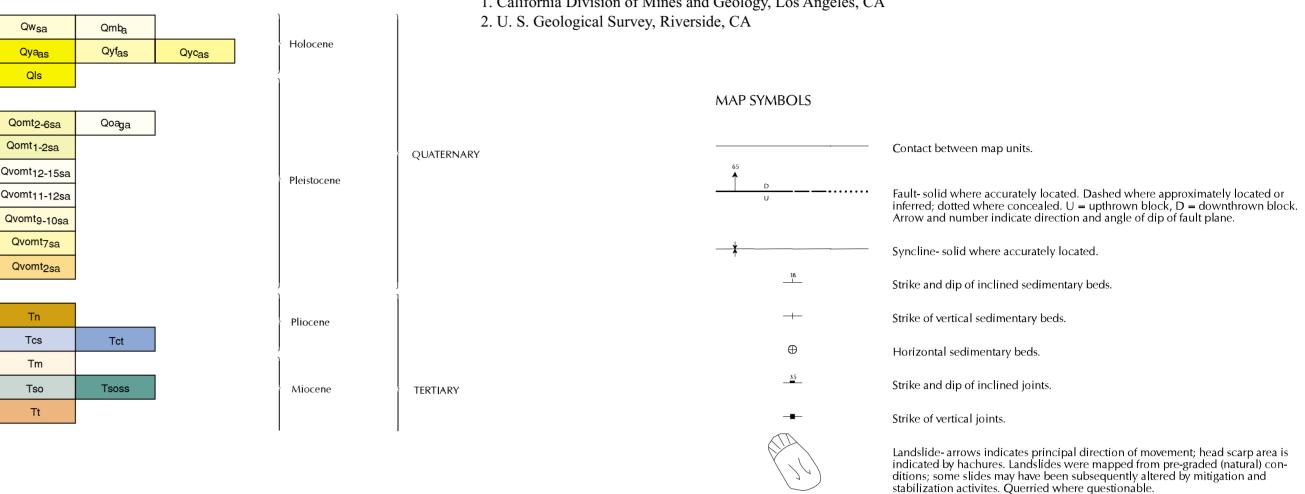






Gary W. Patt<sup>2</sup> and Kelly R. Ruppert<sup>2</sup>

### 1. California Division of Mines and Geology, Los Angeles, CA



#### DESCRIPTION OF MAP LINITS

CORRELATION OF MAP UNITS

DESCRIPTION (	OF MAP UNITS
Qw <sub>sa</sub>	Active channel and wash deposits; unconsolidated sediments, mostly artificially channelized; sa = silty sand with some gravel.
Qmba	Active marine beach deposits; unconsolidated sediments; $a = sand$ .
Qyaas	Younger (Holocene, not active) alluvial flood plain deposit; unconsolidated sediments; as = sandy silt with some clay.
Qyfas	Younger (Holocene, not active) alluvial fan deposit, unconsolidated sediments; as = sandy silt with some clay.
Qycas	Younger (Holocene, not active) colluvial (slope wash) and stream deposits along small drainage courses; as = sandy silt with some gravel and clay.
Qls	Landslide deposits; landslide, broken-up and weathered material, subject to renewed slope failure. Querried where existence is questionable.
Qomt <sub>2-6sa</sub>	Older (Pleistocene, younger than 500,000 years) marine and non-marine terrace deposits above marine wave-cut platform; moderately consolidated sediments. Age of platform is estimated between 120,000 (6—Nestor Terrace) and 413,000 (2 = Parry Grove Terrace) years; sa = silty sand with clay and gravel.
Qoaga	Older (Pleistocene, younger than 500,000 years) alluvial river deposit; moderately consolidated sediments; ga – gravelly sand with clay and silt.
Qomt <sub>1-2sa</sub>	Older (Pleistocene, younger than 500,000 years) marine and non-marine terrace deposits above marine wave-cut platform; moderately consolidated sediments.

Age of platform is estimated between 413,000 (2 = Parry Grove Terrace) and 450,000 years (1 = Golf Course Terrace); sa = silty sand with clay and gravel.

Qvomt12-15sa Very old (Pleistocene, older than 500,000 years) marine and non-marine terrace deposits above marine wave-cut platform; moderately consolidated sediments. Age of platform is estimated between 510,000 (15 = San Elijo Terrace) and 800,000 years (12 = Tecolote Terrace) years; sa = silty sand with clay and

Qvomt11-12sa Very old (Pleistocene, older than 500,000 years) marine and non-marine terrace deposits above marine wave-cut platform; moderately consolidated sediments. Age of platform is estimated between 800,000 (12 – Tecolote Terrace) and 855,000 years (11 – Linda Vista Terrace) years; sa – silty sand with clay and

Very old (Pleistocene, older than 500,000 years) marine and non-marine terrace deposits above marine wave-cut platform; moderately consolidated sediments. Age of platform is estimated between 930,000 (10 = Tierra Santa Terrace) and 975,000 years (9 = Mira Mesa Terrace) years; sa = silty sand with clay and

Very old (Pleistocene, older than 500,000 years) marine and non-marine terrace deposits above marine wave-cut platform; moderately consolidated sediments. Age of platform is estimated to be 1,160,000 (7 = Rifle Range Terrace) years; sa - silty sand with clay and gravel.

> Very old (Pleistocene, older than 500,000 years) marine and non-marine terrace deposits above marine wave-cut platform; moderately consolidated sediments. Age of platform is estimated to be 1,670,000 (2 – Pendleton Terrace) years; sa - silty sand with clay and gravel.

Niguel Formation; marine fine grained sandstone, interbedded with sandy siltstone, locally with basal conglomerate. Poorly bedded and weakly cemented. Capistrano Formation; siltstone facies; marine siltstone, mudstone, silty and diatomaceous shale, poorly to moderately consolidated, poorly bedded. With minor fine to medium grained sandstone beds and lenses, weakly cemented, poorly

Capistrano Formation; turbidite facies; marine channel deposits consisting of coarse grained sandstone, conglomeratic sandstone, conglomerate, breccia and siltstone lenses; weakly cemented and poorly bedded.

Monterey Formation; marine diatomaceous shale interbedded with silty shale, siliceous shale and siltstone, with minor chert, limestone and calcareous shale lenses. Generally thin bedded, hard but severely fractured/jointed and San Onofre Breccia; marine breccia and conglomerate; poorly cemented but locally well cemented; massive to poorly bedded. The clasts mainly consist of

Catalina Schist detritus. San Onofre Breccia; sandstone facies; marine fine to coarse grained sandstone,

sandstone, massive to thick bedded, moderately well cemented.

conglomeratic sandstone and sandy siltstone lenses and interbeds, poorly to well cemented, thick bedded to lenticular. Topanga Formation; marine medium to coarse grained sandstone and conglomeratic

### This geologic map is a compilation of earlier work (see reference) mainly by Edgington, W.J. (1974). The map has been field checked and modified by the author. REFERENCES

Geologic cross-section.

DEPARTMENT OF

Mines and Geology

- 1. Bartow, J.A., 1964, Stratigraphy and sedimentation of the Capistrano Formation, Dana Point area, Orange County, California: unpublished M.A. thesis, University of California, Los Angeles.
- 2. Edgington, W.J. 1974, Geology of the Dana Point quadrangle, Orange County, California: California Department of Conservation, Division of Mines and Geology, Special Report 109, 31 p., Plate 1, 1:12,000.
- Kern, J.P., Derrickson, A., and Burke, T., 1996, Preliminary geologic map of Quaternary marine terraces at Dana Point, Orange County, California: San Diego State University, unpublished report, 9 p., 2 plates, 1:24,000.
- 4. Morton, P.K., Miller, R.V., and Evans, J.R., 1976, Environmental geology of Orange County, California: California Department of Conservation, Division of Mines and Geology, Open File Report 79-3, 474 p., 6 plates, 1:48,000. Neblett, S.S., 1966, Engineering geology of the Dana Point quadrangle, Orange County, California: unpublished M.S. thesis, University of Southern California, 113 p., 1 plate, 1:12,000.
- 6. Tan, S.S., 1984, Classification of landslide propensity in the Dana Point quadrangle, Orange County, California: California Department of Conservation, Division of Mines and Geology, Open File Report 84-57, 22 p., Plate 1.
- 7. Tan, S.S., and Weber, F.H., Jr., 1984, Inventory and analysis of recent damaging slope failures and debris flooding, southern coastal Orange County, California: California Department of Conservation, Division of Mines and Geology, Open File
- 8. Vedder, J.G., 1975, Revised geologic map, structure sections and well table, San
- Joaquin Hills-Capistrano area: U.S. Geological Survey, Open File Report 75-552, 5 plates.
- 9. Vedder, J.G., Yerkes, R.F., and Schoellhamer, J.E., 1957, Geologic map of the San Joaquin Hills-San Juan Capistrano area, Orange County, California: U.S. Geological Survey, Oil and Gas Investigation Map OM-193, 1:24,000.
- 10. Wachtell, J.K., 1978, Soil survey of Orange County and western part of Riverside County, California: U.S. Department of Agriculture, Soil Conservation Service, 149 p., Map Sheet no. 19, 1:24,000.
- Weber, F.H., Jr., 1980, Landsliding and flooding in southern California during the winter of 1979-1980: California Department of Conservation, Division of Mines and Geology, Open-File Report 80-3, 69 p.

